

*ERIGERON JENKINSII* (ASTERACEAE: ASTEREA), A NEW SPECIES  
FROM THE RIO MAYO AREA OF SONORA, MEXICO

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ABSTRACT

A new species, *Erigeron jenkinsii*, is described from two collections from the Río Mayo area east of Alamos in Sonora, México. It is apparently most closely related to *E. delphinifolius* but is particularly characterized (and contrasted with the latter) by its thin, elliptic-oblongate, and relatively small leaves with mostly entire margins, open capitulescence, small heads with few flowers, and eglandular phyllaries.

KEY WORDS: *Erigeron*, Astereae, Asteraceae, Río Mayo, México

Exploration and intensive collecting in the Río Mayo region of southernmost Sonora has brought to light a new species of *Erigeron* L. The species is named for its first collector, Philip D. Jenkins, Assistant Curator of the Herbarium at the University of Arizona in Tucson.

*Erigeron jenkinsii* Nesom, *sp. nov.* TYPE: MEXICO. Sonora: Río Mayo region, Vallecitos, near Santa Barbara, ca. 22 km by air ENE of Alamos; ca. 27°07' N, 108°43'30" W; 30 Oct 1991, *P. Jenkins 91-119* (HOLOTYPE: ARIZ!; Isotype: TEX!).

*Erigeronti delphinifolio* Willd. similis sed foliis tenuioribus elliptico-oblongatis plerumque integrisque, capitulis multo minoribus flosculis paucioribus, phyllariis eglandulosis, et acheniis nerviis lateralibus tenuibus differt.

Annual herbs from a slender taproot. Stems mostly single from the base, 15-60 cm tall, with 5-10 primary branches on the upper half, eglandular, the upper portions moderately to densely strigose or strigose-hirsute with sharply upturned hairs 0.1-0.5 mm long, these less dense and spreading below. Leaves

eglandular, minutely and sparsely strigose to short-pilose, obovate or elliptic-obovate to narrowly oblanceolate, not clasping, with a distinct petiolar region 1/10-1/8 as long as the leaf, with margins entire or sometimes with 1-2 pairs of coarse teeth, the largest near midstem, 25-40 mm long, 5-13 mm wide, reduced in size upwards but continuing relatively large until immediately beneath the heads where bracteate. Heads 4-6 mm wide, 1-ca. 20 in a loose, paniculate capitulescence barely recognizable as corymboid; phyllaries linear-lanceolate, 2-3 mm long, sparsely strigose to strigose-hirsute, eglandular or with a few minute glands. Ray flowers 24-40 in 1-2 series, the corollas white, (5-)7-9 mm long, the ligules 1 mm wide. Disc corollas 1.8-2.2 mm long. Achenes 0.8-1.0 mm long, sparsely strigose, the 2 lateral ribs very thin; pappus of 6-10 basally caducous bristles nearly as long as the disc corollas, without an apparently outer series.

Additional collection examined: MEXICO. Sonora: E slopes of the Sierra de Alamos, 7 km SW of Alamos, Arroyo el Huirotal (= Arroyo el Guaje), Rancho Uvalama, 26°56'15" N, 108°57'W; edge of streambed in tropical deciduous forest, 650 m, 13 Oct 1992, T.R. & R.K. Van Devender 92-1310 (ARIZ).

The two collections of *Erigeron jenkinsii* are separated by about 40 kilometers. Three or four plants with slender taproots, clearly of annual duration, are represented in the Jenkins collection. The Van Devender sheet bears a single, considerably more robust individual, described by its collectors as "perennial;" the root is missing, however, and there is no doubt that all of these plants are the same species. The marked variation in size among the different individuals is characteristic of annuals.

In its linear phyllaries, narrow white ray corollas sharply reflexing at the ligule-tube junction, and its few, basally caducous pappus bristles, *Erigeron jenkinsii* is clearly a member of *Erigeron* sect. *Polyactis* (Less.) Nesom (Nesom 1989). In this section of 20 species, there are only three previously described annuals, two of which occur in northwestern México: *E. delphinifolius* Willd., which appears to be the closest relative of the new species, and *E. inoptatus* A. Gray, which has densely glandular vegetative parts and is related to a different group of species.

The new species differs from *Erigeron delphinifolius* Willd. in a number of features: (1) thinner, smaller, and mostly entire leaves (25-40 mm long and 5-13 mm wide vs. 15-90 mm long, 3-50 mm wide and pinnately dissected), (2) open capitulescence (vs. distinctly corymboid though sometimes few-headed), (3) smaller heads with fewer flowers (heads 4-6 mm wide with 24-40 ray flowers vs. 7-14 mm wide with 110-240 or more ray flowers), (4) eglandular phyllaries (vs. minutely but distinctly granular-glandular), and (5) achenes with thin ribs (vs. thick ribs).

*Erigeron delphinifolius* is a common species in central Durango and from there is scattered southward to the Trans-volcanic Range, where it is a locally abundant colonizer of open areas from Jalisco eastward to Puebla and Tlax-

cala. At the northwestern extremity of its range, it is known by a single, recent collection from west-central Chihuahua (the only collection from that state, not shown on the 1989 map) of plants relatively typical in morphology for the species. *Erigeron jenkinsii* also occurs at the northwest end of the range of *E. delphinifolius*, but the two are completely separated in distribution.

As noted earlier (Nesom 1989), *Erigeron delphinifolius* is the only species of sect. *Polyactis* that ranges outside of the western Sierra Madre. Further, the center of morphological variability for this species is in Durango, where plants commonly produce tripinnately dissected leaves. This is "near the center of species diversity for the section [primarily Chihuahua, Durango, and Sonora] and it is almost certain that the wide distribution of *E. delphinifolius* across the trans-volcanic mountains was attained after its evolutionary origin in the western sierra" (p. 438). In this perspective, *E. jenkinsii* may have arisen from the same ancestral stock that produced *E. delphinifolius*, a hypothesis weighting annual duration as a synapomorphic feature of the two species.

Occasional plants of *Erigeron neomezicanus* A. Gray produce a preponderance of entire leaves, but that species is a large-headed perennial usually with strongly dissected leaves, and it is almost certainly the sister taxon of *E. oreophilus* Greenman, another species with dissected leaves. *Erigeron annuactis* Nesom, the only other species in the section with entire leaves, occurs in Michoacán and has been hypothesized to be closely related to *E. delphinifolius* or derived from it (Nesom 1989). Relative to *E. jenkinsii*, however, *E. annuactis* is larger in stature and produces larger, petiolate leaves, glandular phyllaries, and larger heads with more numerous flowers, and the two species surely have had independent origins.

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#### LITERATURE CITED

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